

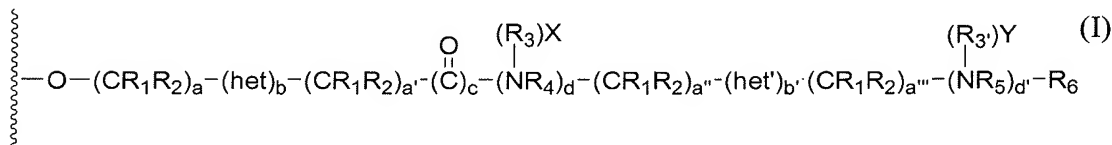
*AMENDMENTS TO THE CLAIMS*

1. (Previously Presented) A chromatographic material comprising:

- (a) a terminal binding functionality;
- (b) a hydrophobic linker comprising at least one functionality that is different from the terminal binding functionality; and
- (c) a solid support,

wherein

the hydrophobic linker links the terminal binding functionality to the solid support; and the chromatographic material is capable of binding bovine albumin at physiological ionic strength, wherein the chromatographic material has the following general formula I:



wherein

R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, and R<sub>5</sub>, at each occurrence, are independently selected from the group consisting of H, C<sub>1-6</sub>-alkyl, C<sub>1-6</sub>-alkoxy, C<sub>1-6</sub>-alkyl-C<sub>1-6</sub>-alkoxy, aryl, C<sub>1-6</sub>-alkaryl, -NR'C(O)R'', -C(O)NR'R'', and hydroxy,

wherein R' and R'' are independently selected from C<sub>1-6</sub>-alkyl, and

wherein no more than one of R<sub>1</sub> and R<sub>2</sub> is hydroxy;

R<sub>6</sub> is selected from the group consisting of H, C<sub>1-6</sub>-alkyl, aryl, C<sub>1-6</sub>-alkaryl, -C(O)OH, -S(O)<sub>2</sub>OH, and -P(O)(OH)<sub>2</sub>;

R<sub>3</sub> and R<sub>3'</sub>, together with X and Y, respectively, may independently be absent or present,

and if present, then R<sub>3</sub> and R<sub>3'</sub> are independently selected from the group

consisting of H, C<sub>1-6</sub>-alkyl, C<sub>1-6</sub>-alkoxy, C<sub>1-6</sub>-alkyl-C<sub>1-6</sub>-alkoxy, aryl, and C<sub>1-6</sub>-alkaryl,

wherein X and Y, independently of each other, represent anions;

het and het' are heteroatom moieties independently selected from the group consisting of -O-, -S-, -S(O)-, and -S(O)<sub>2</sub>-;

a, a', a'', and a''' are independently selected from the integers 0 through 6;

b and b' are independently 0 or 1;

c is 0 or 1, and if c is 1, then  $(R_3)X$  is absent;  
d and d' are independently 0 or 1; and  
the wavy line represents the solid support.

Claim 2 (Canceled).

3. (Previously Presented) The chromatographic material according to claim 1, wherein at least one of a, a', a'', and a''' is 2.
4. (Original) The chromatographic material according to claim 3, wherein at least two of a, a', a'', and a''' are 2.
5. (Original) The chromatographic material according to claim 4, further wherein at least one of a, a', a'', and a''' is 3.
6. (Previously Presented) The chromatographic material according to claim 1, wherein at least one of a, a', a'', and a''' is 3.
7. (Original) The chromatographic material according to claim 6, wherein at least two of a, a', a'', and a''' are 3.
8. (Original) The chromatographic material according to claim 6, wherein a is 3.
9. (Original) The chromatographic material according to claim 8, wherein het is S and b is 1.
10. (Original) The chromatographic material according to claim 9, wherein a' is selected from the group consisting of 2, 3, 4, 5, and 6.
11. (Original) The chromatographic material according to claim 10, wherein b' is 0.
12. (Original) The chromatographic material according to claim 11, wherein c and d are both 0.
13. (Original) The chromatographic material according to claim 12, wherein d' is 1 and  $(R_3)Y$  is absent.
14. (Original) The chromatographic material according to claim 12, wherein d' is 1 and  $(R_3)Y$  is present.

15. (Original) The chromatographic material according to claim 12, wherein  $d'$  is 0.
16. (Original) The chromatographic material according to claim 11, wherein  $c$  is 1 and  $d$  is 1.
17. (Original) The chromatographic material according to claim 16, wherein  $d'$  is 1 and  $(R_3')Y$  is absent.
18. (Original) The chromatographic material according to claim 16, wherein  $d'$  is 1 and  $(R_3')Y$  is present.
19. (Original) The chromatographic material according to claim 16, wherein  $d'$  is 0.
20. (Original) The chromatographic material according to claim 10, wherein  $R_1$  and  $R_2$  are independently selected from H and  $C_{1-6}$ -alkyl.
21. (Original) The chromatographic material according to claim 20, wherein each of  $R_1$  and  $R_2$  are H.
22. (Original) The chromatographic material according to claim 8, wherein  $d'$  is 1.
23. (Original) The chromatographic material according to claim 22, wherein  $R_3'$ ,  $R_5$ , and  $R_6$  are independently selected from the group consisting of H,  $C_{1-6}$ -alkyl, aryl, and  $C_{1-6}$ -alkaryl.
24. (Original) The chromatographic material according to claim 23, wherein  $R_3'$ ,  $R_5$ , and  $R_6$  are independently selected from  $C_{1-6}$ -alkyl and aryl.
25. (Original) The chromatographic material according to claim 24, wherein  $R_3'$ ,  $R_5$ , and  $R_6$  are independently selected from  $C_{1-6}$ -alkyl.
26. (Original) The chromatographic material according to claim 25, wherein  $R_3'$ ,  $R_5$ , and  $R_6$  are independently selected from methyl and ethyl.
27. (Original) The chromatographic material according to claim 24, wherein one of  $a''$  and  $a'''$  is 1 and the other is 1 or 2.
28. (Original) The chromatographic material according to claim 25, wherein  $(R_3')Y$  is absent.

29. (Original) The chromatographic material according to claim 8, wherein  $d'$  is 0.
30. (Original) The chromatographic material according to claim 29, wherein  $R_6$  is H,  $C_{1-6}$ -alkyl, aryl, or  $C_{1-6}$ -alkaryl.
31. (Original) The chromatographic material according to claim 30, wherein  $R_6$  is selected from  $C_{1-6}$ -alkyl and aryl.
32. (Original) The chromatographic material according to claim 31, wherein  $R_6$  is phenyl.
33. (Original) The chromatographic material according to claim 31, wherein one of  $a''$  and  $a'''$  is 1 and the other is 1 or 2.
34. (Original) The chromatographic material according to claim 29, wherein  $R_6$  is  $-C(O)OH$ ,  $-S(O)_2OH$ , and  $-P(O)(OH)_2$ .
35. (Original) The chromatographic material according to claim 34, wherein one of  $a''$  and  $a'''$  is 1 and the other is 1 or 2.
36. (Previously Presented) The chromatographic material according to claim 1, wherein:
- a is 3;
  - $a'$  is 2;
  - b is 1; and
  - each  $R_1$  and  $R_2$  in  $(CR_1R_2)_a$  and  $(CR_1R_2)_{a'}$  is H, except that one of  $R_2$  in  $(CR_1R_2)_a$  is optionally OH.
37. (Original) The chromatographic material according to claim 36, wherein one of  $R_2$  in  $(CR_1R_2)_a$  is OH.
38. (Original) The chromatographic material according to claim 37, wherein each of  $a''$ ,  $a'''$ , and  $b'$  is 0.
39. (Previously Presented) The chromatographic material according to claim 1, wherein:
- $a''$  is 3;
  - $a'''$  is 2;

b' is 1; and

each  $R_1$  and  $R_2$  in  $(CR_1R_2)_{a''}$  and  $(CR_1R_2)_{a'''}$  is H, except that one of  $R_2$  in  $(CR_1R_2)_{a''}$  is optionally OH.

40. (Original) The chromatographic material according to claim 39, wherein one of  $R_2$  in  $(CR_1R_2)_{a''}$  is OH.

41. (Original) The chromatographic material according to claim 40, wherein each of a, a', and b'' is 0.

42. (Previously Presented) The chromatographic material according to claim 1, wherein:

a is 3;

a' is 3;

b is 1; and

each  $R_1$  and  $R_2$  in  $(CR_1R_2)_a$  and  $(CR_1R_2)_{a'}$  is H.

43. (Original) The chromatographic material according to claim 42, wherein each of a'', a''', and b' is 0.

44. (Previously Presented) The chromatographic material according to claim 1, wherein:

a'' is 3;

a''' is 3;

b' is 1; and

each  $R_1$  and  $R_2$  in  $(CR_1R_2)_{a''}$  and  $(CR_1R_2)_{a'''}$  is H.

45. (Original) The chromatographic material according to claim 44, wherein each of a, a', and b is 0.

46. (Previously Presented) The chromatographic material according to claim 1, wherein

a is 3;

a' is 5;

b is 1; and

each  $R_1$  and  $R_2$  in  $(CR_1R_2)_a$  and  $(CR_1R_2)_{a'}$  is H.

47. (Original) The chromatographic material according to claim 46, wherein:

b' is 0;

one of a'' and a''' is 2 or 3, the other being 0; and

each R<sub>1</sub> and R<sub>2</sub> in (CR<sub>1</sub>R<sub>2</sub>)<sub>a''</sub> and (CR<sub>1</sub>R<sub>2</sub>)<sub>a'''</sub> is H, except that one of R<sub>2</sub> in (CR<sub>1</sub>R<sub>2</sub>)<sub>a''</sub> and (CR<sub>1</sub>R<sub>2</sub>)<sub>a'''</sub> is optionally OH.

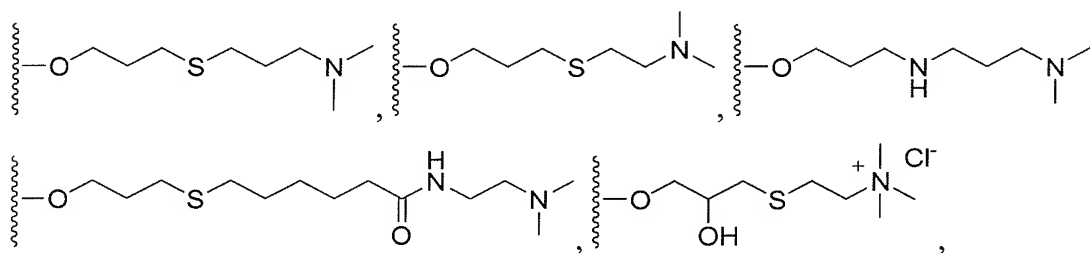
48. (Original) The chromatographic material according to claim 47, wherein a'' or a''' is 3 and one of R<sub>2</sub> in (CR<sub>1</sub>R<sub>2</sub>)<sub>a''</sub> and (CR<sub>1</sub>R<sub>2</sub>)<sub>a'''</sub> is OH.

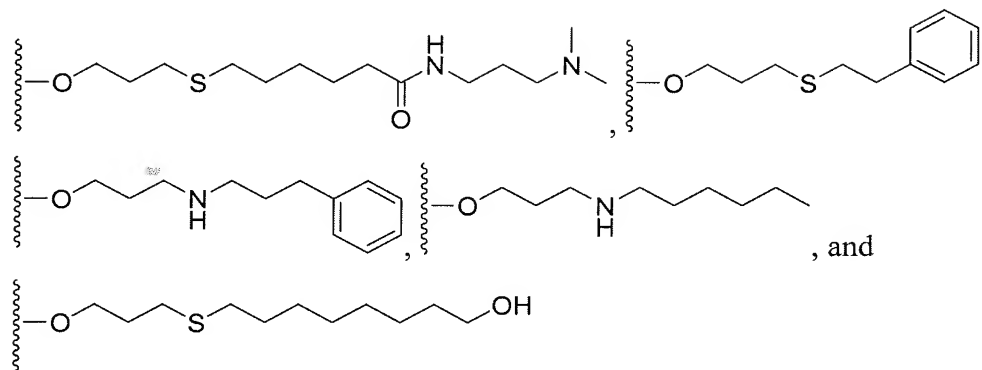
49. (Previously Presented) The chromatographic material according to claim 1, wherein  
 a or a' is 3, the other being 0;  
 a'' or a''' is 3;  
 each of b, b', and c is 0; and  
 d is 1.

50. (Original) The chromatographic material according to claim 49, wherein d' is 1.

51. (Previously Presented) The chromatographic material according to claim 1, wherein:  
 each of R<sub>1</sub> and R<sub>2</sub> are H;  
 R<sub>3</sub>, R<sub>3</sub>', R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of H, C<sub>1-6</sub>-alkyl, aryl, and C<sub>1-6</sub>-alkaryl;  
 het is S;  
 a is 3;  
 a' is selected from the group consisting of 2, 3, 4, 5, and 6;  
 one of a'' and a''' is 1 and the other is 1 or 2; and  
 b is 1 and b' is 0.

52. (Previously Presented) The chromatographic material according to claim 1, selected from the group consisting of:





53. (Original) The chromatographic material according to claim 1, wherein the solid support is an organic material.

54. (Original) The chromatographic material according to claim 53, wherein the organic material is one selected from the group consisting of cellulose, agarose, dextran, polyacrylates, polystyrene, polyacrylamide, polymethacrylamide, copolymers of styrene and divinylbenzene, and mixtures thereof.

55. (Original) The chromatographic material according to claim 1, wherein the solid support is an inorganic material.

56. (Original) The chromatographic material according to claim 55, wherein the inorganic material is one selected from the group consisting of silica, zirconia, alumina, titania, ceramics, and mixtures thereof.

57. (Original) The chromatographic material according to claim 1, wherein the solid support is in the form of a bead or particle.

58. (Original) The chromatographic material according to claim 1, wherein the solid support is a planar solid support.

59. (Original) The chromatographic material according to claim 58, wherein the chromatographic material is in the form of a biochip.

60. (Original) The chromatographic material according to claim 59, wherein the solid support is selected from the group consisting of a metal, metal oxide, silicon, glass, a polymer, and a composite material.

61. (Original) The chromatographic material according to claim 59, wherein a multitude of terminal binding functionalities and the hydrophobic linkers to which the terminal binding functionalities are linked are segregated into a plurality of addressable locations on the solid support.

62. (Original) The chromatographic material according to claim 59, wherein the biochip is a mass spectrometer probe.

63. (Original) The chromatographic material according to claim 61, wherein at least two different addressable locations comprise the same terminal binding functionality and hydrophobic linker.

Claims 64-98 (Canceled).

99. (Previously Presented) The chromatographic material of claim 1, wherein

$R_1$ ,  $R_2$ ,  $R_4$ , and  $R_5$ , at each occurrence, are independently selected from the group consisting of H,  $C_{1-6}$ -alkyl,  $C_{1-6}$ -alkoxy,  $C_{1-6}$ -alkyl- $C_{1-6}$ -alkoxy,  $-NR'R''$ ,  $-C(O)NR'R''$ , and hydroxy,

wherein  $R'$  and  $R''$  are independently selected from  $C_{1-6}$ -alkyl, and

wherein no more than one of  $R_1$  and  $R_2$  is hydroxy; and,

$R_6$  is selected from the group consisting of H,  $C_{1-6}$ -alkyl,  $-C(O)OH$ ,  $-S(O)_2OH$ , and  $-P(O)(OH)_2$ .

100. (Previously Presented) The chromatographic material of claim 1, wherein

$R_6$  is selected from the group consisting of  $C_{1-6}$ -alkyl,  $-C(O)OH$ ,  $-S(O)_2OH$ , and  $-P(O)(OH)_2$ .

101. (New) The chromatographic material of claim 1, wherein

$R_1$ ,  $R_2$ ,  $R_4$ , and  $R_5$ , at each occurrence, are independently selected from the group consisting of H,  $C_{1-6}$ -alkyl,  $C_{1-6}$ -alkoxy,  $C_{1-6}$ -alkyl- $C_{1-6}$ -alkoxy, aryl,  $C_{1-6}$ -alkaryl, and hydroxy,



wherein no more than one of  $R_1$  and  $R_2$  is hydroxy;  
 $R_6$  is selected from the group consisting of H,  $C_{1-6}$ -alkyl, aryl, and  $C_{1-6}$ -alkaryl;  
 $R_3$  and  $R_3'$ , together with X and Y, are both absent; and  
d and d' are both 0.

102. (New) The chromatographic material of claim 1, wherein

a is 3;  
a'' is 0 or 3;  
d is 1;  
a', a''', b, b', c, and d' are all 0;  
( $R_3$ )X is absent;  
each  $R_1$ ,  $R_2$ , and  $R_4$ , is H; and  
 $R_6$  is selected from the group consisting of  $C_{1-6}$ -alkyl and aryl.

103. (New) The chromatographic material of claim 1, wherein

a is 3;  
d is 1;  
a', a'', a''', b, b', c, and d' are all 0;  
( $R_3$ )X is absent;  
each  $R_1$ ,  $R_2$ , and  $R_4$ , is H; and  
 $R_6$  is selected from the group consisting of  $C_{1-6}$ -alkyl.

104. (New) The chromatographic material of claim 1, wherein

a is 3;  
a'' is 3;  
d is 1;  
a', a''', b, b', c, and d' are all 0;  
( $R_3$ )X is absent;  
each  $R_1$ ,  $R_2$ , and  $R_4$ , is H; and  
 $R_6$  is selected from the group consisting of aryl.